

REMARKS/ARGUMENTS

Claims 1-16 of the application are pending. Claims 1-16 have been rejected. Applicant respectfully traverses the Examiner's rejection.

Objection to the Declaration

In the Office Action of August 26, 2004, the Examiner objected to the Declaration due to informalities. A new Declaration in compliance with 37 CFR §1.67(a) identifying this application by application number and filing date, as requested by the Examiner, is filed herewith. Therefore, the Applicant traverses the Examiner's objection to the Declaration and respectfully requests withdrawal of the objection.

Objection to the Drawings

In the Office Action of August 26, 2004, the Examiner objected to the drawings due to informalities. Specifically, the Examiner objected to FIG. 1 due to omission of information. A replacement sheet for FIG. 1 in compliance with 37 CFR §1.121(d), as requested by the Examiner, is filed herewith. Therefore, the Applicant traverses the Examiner's objection to the drawings and respectfully requests withdrawal of the objection.

Objection to the Specification

In the Office Action of August 26, 2004, the Examiner objected to the specification due to typographical errors. The Applicant has corrected the typographical errors pointed out by the

Examiner (see Amendments to the Specification above). Therefore, the Applicant traverses the Examiner's objection to the specification and respectfully requests withdrawal of the objection.

Rejection under §102

In the Office Action of August 26, 2004, the Examiner rejected claims 1, 5, 8, 12 and 16 under 35 U.S.C. 102(a) as being anticipated by Schwabe (WO 00/46667). The Applicant respectfully disagrees.

The Schwabe reference is directed to a system for linking architecture neutral code downloaded to a resource constrained computer. The code may be separated into one or more packages having one or more referenceable items. The system then maps the one or more referenceable items into corresponding one or more tokens and orders the tokens to correspond to a run-time mode. The system then downloads the packages to the resource constrained computer and links the packages into an executable code using the ordered tokens.

The invention of the Applicant, however, is directed to a Java run-time system or method that includes a stack based interpreter for executing a Java program comprising Java bytecode instructions and Java class structures. The Applicant's invention further includes a converter for mapping standard Java symbolic linking strings contained in a downloaded Java program onto linking identifiers and an export table for storing linking identifiers generated by the converter to bind a reference in a bytecode instruction to be executed to a corresponding link target. (See Abstract of Applicant's invention and independent claims 1, 8 and 12).

In the Office Action of August 26, 2004, the Examiner stated that the Schwabe reference discloses a converter for mapping Java symbolic linking strings in a Java program onto linking identifiers and points the Applicant to page 8 lines 17-27 which purportedly shows a converter for mapping symbolic names or strings to tokens or identifiers. A read of the Schwabe reference

reveals several converters described in the reference – converter 14 and converter 72. Converter 14 is described with reference to FIG. 1 in the Schwabe reference and is described in the passage below from the Schwabe reference:

“When the applet is ready to be downloaded to the card 40, the class files 10 are converted to a converted applet (CAP) file 16 by a converter 14. The converter 14 can be a Java application being executed by a desktop computer. The converter 14 can accept as its input one or more export files 12 in addition to the class files 10 to be converted. An export file 12 contains naming or linking information for the contents of other packages that are imported by the classes being converted.”

Thus, converter 14 of the Schwabe reference appears to act as an algorithm for converting a class file to an applet file. Further, the converter 14 can be a Java application itself. With regards to converter 14 of the Schwabe reference, there is no mention of mapping standard Java symbolic linking strings contained in a downloaded Java program onto linking identifiers, as defined in the independent claims of Applicant’s invention.

Converter 72 is described with reference to FIG. 4A in the Schwabe reference and is described in the passage below from the Schwabe reference:

“Fig. 4A shows a system for converting a package, which may define an applet or a library in preparation for downloading onto smart card 40. Converter 72 receives data input from one or more class files 70, which define the functionality of an applet. The converter 72 in turn generates a Java Card CAP file 74 suitable for downloading.”

Thus, converter 72 of the Schwabe reference appears to act as an algorithm for

converting a class file to a CAP file. With regards to converter 72 of the Schwabe reference, there is no mention of mapping standard Java symbolic linking strings contained in a downloaded Java program onto linking identifiers, as defined in the independent claims of Applicant's invention.

The Applicant's invention specifically delineates that the converter maps "onto linking identifiers." The mapping to the linking identifiers aid in the linking, compiling and porting process associated with the Java program at issue. The process of linking and referencing with regards to standard symbolic linking strings is described in greater detail with reference to page 7 of the Applicant's specification:

"During the downloading and linking process, the converter 100 of the adapted JavaCard VM 55 executes a mathematical algorithm, so-called hash function, on the standard symbolic linking strings 80 of the constant pool 30 of the downloaded cap file 10. The hash function 100 generates, for each symbolic linking string 80, a short token 65, preferably a number. These tokens 65 are used to replace the symbolic linking strings 80 in the constant pool 20 of the cap file 10 and are further stored in the export table 40 of the Adapted JavaCard VM 55. During the linking process the adapted JavaCard VM 55 looks up the referenced items in the bytecode instructions by the tokens 55 generated with the hash function and then replaces these references by the corresponding run-time specific identifiers."

This is further described in greater detail with reference to page 8 of the Applicant's specification:

"the converter 100 of the adapted JavaCard VM 55 employs a parameterized

hash function to map the symbolic linking strings 80 of the constant pool 30 of the cap file 10 to associated tokens 65.”

This is further described in greater detail with reference to page 8 of the Applicant’s specification:

“The hash function to be used in the adapted JavaCard VM 55 maps all symbolic linking strings 80 on different tokens 65.”

As explained above, the Schwabe reference does not disclose a converter for mapping Java symbolic linking strings in a Java program onto linking identifiers. For these reasons, the Schwabe reference does not disclose, teach, or suggest the aforementioned elements of independent claims 1, 8 and 12 - namely, a converter for mapping Java symbolic linking strings in a Java program onto linking identifiers. Thus, the Examiner’s rejection of these claims has been traversed and the Applicant respectfully requests that the rejection is withdrawn. The Applicant further requests allowance of these claims.

Further, dependant claims 2-7, 9-11 and 13-16 depend from and include all of the limitations of independent claims 1, 8 and 12. For this reason, the Applicant respectfully requests withdrawal of the Examiner’s rejection and allowance of these claims.

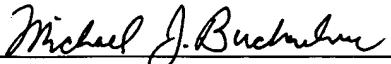
Rejection under §103

In the Office Action, the Examiner rejected claims 2-4, 6-7, 9-11, 13-15 under 35 U.S.C. 103(a) as being unpatentable over Schwabe (WO 00/46667) in view of Eidt (U.S. Patent No. 5764987). The Applicant respectfully disagrees.

Claims 2-4, 6-7, 9-11, 13-15 are dependant claims that depend from and include all of the

limitations of independent claims 1, 8 and 12. For the reasons stated above for independent claims 1, 8 and 12, neither the Schwabe reference, the Eidt reference or any combination of the two, disclose, teach, or suggest the aforementioned elements of dependant claims 2-4, 6-7, 9-11, 13-15. Thus, the Examiner's rejection of these claims has been traversed and the Applicant respectfully requests that the rejection is withdrawn. The Applicant further requests allowance of these claims.

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I hereby certify that this Amendment and Response to Office Action, and any documents referred to as attached therein are being deposited in the U. S. Post Office as Express Mail on this date, November 26, 2004 to the Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.


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